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| APPLICATION NO.              | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|------------------------------|-------------|----------------------|---------------------|------------------|
| 10/531,835                   | 10/12/2005  | Bernard John Cooper  | 70403-0021          | 3756             |
| McGarry Bair                 | 7590 07     | 24/2008              | EXAM                | INER             |
| 171 Monroe Av                | enue N W    | ZHU, WEIPING         |                     |                  |
| Suite 600<br>Grand Rapids, I | MI 49503    |                      | ART UNIT            | PAPER NUMBER     |
| ,                            |             |                      | 1793                |                  |
|                              |             |                      |                     |                  |
|                              |             |                      | MAIL DATE           | DELIVERY MODE    |
|                              |             |                      | 07/24/2008          | PAPER            |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

LITED STATES PATENT AND TRADEMARK OFFICE UNITED STATES DEPARTMENT OF COMME United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov ATTORNEY DOCKET NO. CONFIRMATION NO. FIRST NAMED INVENTOR FILING DATE 70403-0021 3756 10/12/2005 Bernard John Cooper 10/531,835 07/03/2008 **EXAMINER** McGarry Bair ZHU, WEIPING 171 Monroe Avenue N W Suite 600 PAPER NUMBER ART UNIT Grand Rapids, MI 49503 1793 MAIL DATE **DELIVERY MODE** 

Please find below and/or attached an Office communication concerning this application or proceeding.

07/03/2008

**PAPER** 

The time period for reply, if any, is set in the attached communication.

|   | Application No.   | Applicant(s)   |  |  |  |  |
|---|---|--|--|--|--|--|
|   | 10/531,835  | COOPER ET AL.  |  |  |  |  |
| Office Action Summary   | Examiner  | Art Unit   |  |  |  |  |
|   | WEIPING ZHU   | 1793   |  |  |  |  |
| <ul> <li>The MAILING DATE of this communication appears on the cover sheet with the correspondence address —</li> <li>Period for Reply</li> </ul>   |   |  |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING D/ Extensions of time may be available under the provisions of 37 CFR 1.1: after SIX (6) MONTHS from the mailing date of this communication.  If NO period for reply is specified above, the maximum statutory period v Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNICATION 36(a). In no event, however, may a repty be the will apply and will expire SIX (6) MONTHS from . cause the application to become ABANDONE | N. nety filed the mailing date of this communication. D (35 U.S.C. § 133). |  |  |  |  |
| Status ,  |   |  |  |  |  |  |
| 1) Responsive to communication(s) filed on 25 June 2008.  |   |  |  |  |  |  |
| 2a)⊠ This action is FINAL. 2b)☐ This  | 2a)⊠ This action is FINAL. 2b)□ This action is non-final.   |  |  |  |  |  |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is  |   |  |  |  |  |  |
| closed in accordance with the practice under E  | closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.   |  |  |  |  |  |
| Disposition of Claims   |   |  |  |  |  |  |
| 4)⊠ Claim(s) <u>1 and 3-10</u> is/are pending in the application.   |   |  |  |  |  |  |
| 4a) Of the above claim(s) 8-10 is/are withdrawn   | n from consideration.   |  |  |  |  |  |
| 5) Claim(s) is/are allowed.   | •   |  |  |  |  |  |
| ,   | 6)⊠ Claim(s) <u>1 and 3-7</u> is/are rejected.  |  |  |  |  |  |
| 7) Claim(s) is/are objected to.   |   |  |  |  |  |  |
| 8) Claim(s) are subject to restriction and/or election requirement.   |   |  |  |  |  |  |
| Application Papers  |   | · .  |  |  |  |  |
| 9) The specification is objected to by the Examiner.  |   |  |  |  |  |  |
| 10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  |   |  |  |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).   |   |  |  |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  |   |  |  |  |  |  |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.  |   |  |  |  |  |  |
| Priority under 35 U.S.C. § 119  | •   |  |  |  |  |  |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of:  |   |  |  |  |  |  |
| 1. Certified copies of the priority documents have been received.   |   |  |  |  |  |  |
| <ol><li>Certified copies of the priority documents have been received in Application No</li></ol>   |   |  |  |  |  |  |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage   |   |  |  |  |  |  |
| application from the International Bureau (PCT Rule 17.2(a)).   |   |  |  |  |  |  |
| * See the attached detailed Office action for a list of the certified copies not received.  |   |  |  |  |  |  |
|   |   |  |  |  |  |  |
| Attachment(s)   |   |  |  |  |  |  |
| Attachment(s)  1) Notice of References Cited (PTO-892)  4) Interview Summary (PTO-413)  |   |  |  |  |  |  |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail D  | ate  |  |  |  |  |
| 3) Information Disclosure Statement(s) (PTO/SB/08)  | 5) Notice of Informal F   | ratent Application   |  |  |  |  |

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#### **DETAILED ACTION**

#### Status of Claims

1. Claims 1 and 3-7 are currently under examination, wherein claims 1, 3, 5 and 6 have been amended in applicant's amendment filed on May 20, 2008. The original claim 2 has been cancelled by the applicant in the same reply. The non-elected claims 8-10 have been withdrawn, wherein claims 8 and 9 have been amended in the same reply.

Applicant's election with traverse of Invention I, Claims 1-7 in the reply filed on May 20, 2008 is acknowledged. The traverse is on the ground(s) that Snodgrass et al. (US 4,444,740) does not disclose a method substantially identical to the method of the instant claim 1. This is not found persuasive. As stated in the Office action dated February 21, 2008, Snodgrass et al. ('740) discloses a method of treating a spent potliner (abstract), which is substantially identical to the claimed method of treating the spent potliner in the process steps as claimed. The intended use of the residual of Snodgrass et al. ('740) does not have to be the same as that of the instant invention.

The requirement is still deemed proper and is therefore made FINAL.

### Status of Previous Rejections

2. The previous rejections of claims 1 and 3-7 under 35 U.S.C. 103(a) as being unpatentable over Gamson et al. (US 4,355,017) in view of Snodgrass et al. (US 4,444,740) as stated in the Office action dated February 21, 2008 have been maintained.

Claim Rejections - 35 USC § 103

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 3. Claims 1 and 3-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gamson et al. ('017) in view of Snodgrass et al. ('740) as stated in the Office action dated February 21, 2008.

With respect to the amended features of claim 1, the function of mixing the heated spent potliner with water in the process of Gamson et al. ('017) is inherently the same as the function of mixing the heated spent potliner in the claimed method of the instant invention. Snodgrass et al. ('740) discloses blending the treated ash residue with other chemicals and minerals to provide useful mineral products (col. 2, lines 35-58 and Figure 1).

With respect to the amended features of claims 2, 5 and 6, they do not change the scopes of the claims. Therefore, the reasons for the rejections as stated in the Office action dated February 21, 2008 are applied properly herein.

## Response to Arguments

4. The applicant's arguments filed on May 20, 2008 have been fully considered but they are not persuasive.

First, the applicant argues that instead and unlike the cited references, the instant invention keeps the important constituents such as fluorine and carbon in the residual. In response, the examiner notes that as stated in the Office action dated

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February 21, 2008, the method of treating a spent potliner after use in an aluminum smelting process of Gamson et al. ('017) in view of Snodgrass et al. ('740) meets all the claim limitations of the method of the instant invention as claimed. Therefore, the remaining contents of fluorine and carbon in the residual of Gamson et al. ('017) in view of Snodgrass et al. ('740) would be substantially identical to those of the instant invention.

Second, the applicant argues that nowhere does Snodgrass et al. ('740) teach or suggest blending the cured residual with other chemicals and minerals to provide useful mineral products as required in the instant Claim 1. In response, the examiner notes Snodgrass et al. ('740) discloses blending the water-treated ash residue with other chemicals and minerals (e.g. diluted sulfuric acid and lime) to provide mineral products (e.g. calcium fluoride) (col. 2, lines 35-58 and Figure 1), which reads on the claim limitations. It would have been obvious to one of ordinary skill in the art that the product of Gamson et al. ('017) in view of Snodgrass et al. ('740) is a useful product which can be used at least as landfill.

#### Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Weiping Zhu whose telephone number is 571-272-6725. The examiner can normally be reached on 8:30-16:30 Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/

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Supervisory Patent Examiner, Art Unit 1793

WZ

6/24/2008